

Intel® 440MX Entry-level Communications Appliance Reference Design

Product Highlights

- Scalable performance using Intel® Celeron™ processor – Low Power at 400 MHz to Pentium® III processor – Low Power at 400-700 MHz in the BGA 2 socket to address various price/performance needs
- Intel® 440MX integrated low-power chipset
 - 100 MHz system bus
 - 100 MHz memory bus
 - Up to two ATA-33 hard drives
 - Two USB ports
- Ultra-small form factor (4 inches x 7 inches)
- Low power processor and chipset reduces power consumption and thermal design parameters
- PCI Mezzanine Card (PMC) connector allows for additional hardware functionality
- 32 MB up-gradable to 128 MB SoDIMM SDRAM
- Two 10/100 Ethernet ports permit appliance to be used as a gateway between internal networks and the internet
- Eight software controlled LEDs
- Ease-of-use and stand-alone functionality

The reference design contains the following products from Intel:

- Intel Celeron Processor – Low Power at 400 MHz
- Intel 440MX Chipset
- Two 82559ER 10/100 Ethernet interface components
- Intel Flash

Benefits for Developers:

The Intel 440MX Entry-level Communications Appliance Reference Design offers the following advantages for developers:

■ Time-To-Market:

- It provides a comprehensive platform solution that can dramatically accelerate time-to-market. Intel works with independent hardware and software vendors to quickly enable the implementation of designs.

■ Economical:

- Schematics are available for download at no cost from Intel's Developer Site at: developer.intel.com/platforms/applied/eiacomm/entry.htm
- Intel's entry-level platform delivers the best price/performance solution.

■ Extended Product Lifecycle:

- Embedded Intel processors and other components are designed to meet the extended lifecycle requirements of communications applications.

■ Scalable and Flexible:

- Intel's scalable platform allows you to use the same motherboard but populated the right Intel processor for the right performance.
- The scalable Intel® Architecture enables developers to differentiate their products with value-added features and functionality, while maintaining the level of performance that end users expect.

■ Quality:

- Intel's manufacturing capacity and quality requirements help ensure product reliability and customer satisfaction.

■ Broadest application support:

- The platform is based on the open Intel Architecture that is familiar to most programmers. Moreover, the architecture supports multiple operating systems, including Linux*.

Product Overview

The Intel 440MX Entry-level Communications Appliance Reference Design contains the essential components for delivering the right performance and functionality for entry-level communication appliances. This reference design was developed to enable our customers focused on the communications appliance market to reduce their time-to-market by delivering a complete design that is easily modified to fit their needs without re-working the core microprocessor and chipset design.

The Intel 440MX Entry-level Communications Appliance Reference Design is a simple appliance that is designed for small office and small to medium-sized businesses. It offers a low-cost solution in an extremely small form factor (4 inches x 7 inches). This reference design is targeted at the entry-level communications appliance market segment that includes security, network attached storage, web caching, all-in-one devices and the emerging advanced residential gateway appliances that help deliver a new level of services to the network. The flexibility, scalability and reliability of the Intel Architecture is an ideal platform for new designs that target this fast emerging market.

The reference design contains the following information from Intel:

- User's Manual
- Orcad* V.9 Schematics
- .pdf Schematics
- Material list
- Available Original Design Manufacturer List
- Available Independent Software Vendor List

Third Party Vendor Support

Intel works with multiple independent hardware and software vendors to quickly enable the implementation of designs based on the Intel 440MX Entry-level Communications Appliance reference design. The following vendors are planning to provide support for this reference design. For more information, visit the Intel Web site at: developer.intel.com/platforms/applied/eiacomm/reference_configs.htm

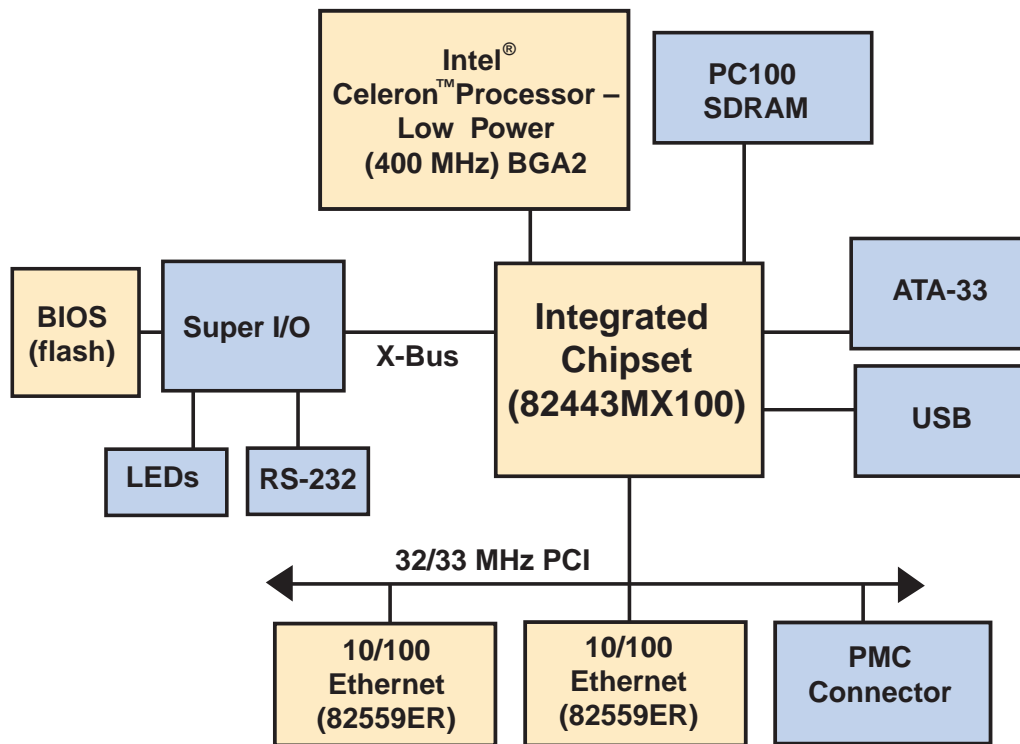
Independent Hardware Vendors

- Force Computers*
- ITOX*
- Portwell*
- Teknor Applicom*
- Trenton Technology*
- Win Enterprises*

Independent Software Vendors and Applications

- | | |
|---------------|------------------------------------|
| ■ eSoft* | Internet Gateway |
| ■ Technauts* | Multi Service Access Device |
| ■ WireX* | Small Business Server (All-In-One) |
| ■ LynuxWorks* | Operating System |
| ■ MontaVista* | Operating System |
| ■ Wind River* | Operating System |

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Board Size: 4" x 7"

Block Diagram

Intel Access

Developer's Site	developer.intel.com
Reference Design Product Briefs	developer.intel.com/platforms/applied/eiacomm/reference_configs.htm
Other Intel Support: Intel Literature Center	developer.intel.com/design/litcentr (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada) International locations please contact your local sales office.
General Information Hotline	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

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For more information, visit the Intel Web site at: developer.intel.com

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